



Long Term and Short Term Solutions Work Group - And Dredging Chart  
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2 Attachments



Work Plan Outline22803.doc



10.09 Dredging Chart.xls

Hi All,

I want to apologize for not contacting you all sooner. For reasons I won't go into, a few meetings have been scheduled but not held. However, we do want to meet and continue our work on the LTMS Windows Work Plan (attached) and review the Dredging Chart (attached) and discuss Dredging 201. So, I wondering if we can get critical mass two times next week.

I am proposing we meet for the Long Term Windows Work Group on

Wednesday, October 28, from 1-4 (BCDC)

and

Thursday, October 29 from 1 - 3 (BCDC).

Please let me know if these will work for you. I will forward agendas tomorrow (Thursday).

Thanks, I hope October is treating you all well.

Brenda

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**LTMS**  
**Environmental Windows Work Group**  
**Draft Work Plan**

February 28, 2003

## LTMS Environmental Windows

### Draft Work Plan

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## LTMS Environmental Windows Work Plan

### I. *Introduction*

As described in the preface of the Marine Board's Transportation Research Special Report 262 on setting environmental work windows, "Environmental windows are those periods of the year when dredging and disposal activities may be carried out because regulators have determined that the adverse impacts associated with dredging and disposal can be reduced below critical thresholds during these periods. Environmental windows, therefore, are used as a management tool for reducing the potentially harmful impacts of dredging activities on aquatic resources."

The 2001 Long Term Management Strategy for Placement of Dredged Material Management Plan (LTMS) established a number of programmatic environmental work windows specifically for the Bay Area dredging and disposal projects. These programmatic windows were developed through the Endangered Species Act formal consultation process, and through the recommendations of the California Department of Fish and Game. While this process was different than those recommended by the Marine Board's Report 262, the resulting programmatic windows and subsequent consultation process follows the intent of the report. The main difference between the LTMS process and the Marine Board's process is that the LTMS windows are based primarily on endangered species, and therefore are based on avoidance of impacts to the species of concern, and are conservative in nature. In addition, the LTMS process was not a consensus based process as is the Marine Board process, where stakeholders, engineers and biologists work together to form the windows. This work plan seeks to use the current LTMS windows and open communication between the dredging community, scientists, regulatory agencies and dredging technology experts. The Long Term Solutions Work Group has been established to address these issues. In addition, five sub-work groups have been established. They include the Short Term Solutions Work Group, the Science and Data Gaps Work Group, the Technology and Operations Work Group, the Confounding Factors Work Group and the Funding Work Group. When a project cannot meet an environmental window, the Short Term Work Group has been established to assist with the informal consultation process and to create a forum to discuss possible solutions to the dredging issues.

This Work Plan was developed to facilitate a review of existing scientific information, identify data gaps, investigate technology or operations that could lessen the impacts to the resources, and to streamline the regulatory process necessary to complete a dredging project. Based on the Work Plan, the Work Groups will recommend actions that are possible with the current available resources, and identify those that would need additional funding or resources. The Work Plan is a living document that will be updated and revised as study needs and policy recommendations are identified.

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## *II. Environmental Windows Work Group Mission Statement*

The Environmental Windows work group is part of the ongoing LTMS program, building on the LTMS goals and the overall approach to regional dredged material management established by the EIS/EIR (1998) and Management Plan (2001). Relevant concepts from “Special Report 262” of the Transportation Research Board, National Research Council (NAS, 2001) provide additional important guidance for the work group’s efforts. The LTMS goals are to:

- Maintain in an economically and environmentally sound manner those channels necessary for navigation in San Francisco Bay and Estuary and eliminate unnecessary dredging activities in the Bay and Estuary
- Conduct dredged material disposal in the most environmentally sound manner
- Maximize the use of dredged material as a resource
- Maintain the cooperative permitting framework for dredging and disposal applications

### *Issue Statement*

How can we implement environmental windows in such a manner that dredging is completed in a timely manner while meeting the LTMS Goals?

### *Work Group Goals*

- To minimize environmental impacts of dredging and dredged material disposal on important biological resources, and in particular to fully protect threatened and endangered species
- To identify how this protection may be achieved while allowing necessary dredging projects to be completed with the most flexibility possible, in compliance with all relevant state and federal laws

### *Objectives*

The programmatic LTMS windows are based on present knowledge – and uncertainty – about the ecology, geography, and temporal presence of state- and federally-listed species and other species of concern (i.e. herring). They do not reflect detailed assessments of specific impacts of dredging and disposal. The next steps should incorporate assessments that are both programmatic and project specific.

### *Short-Term*

Facilitate immediate dredging needs by considering whether/how existing data and technologies may allow more flexibility for individual projects or groups of projects that have difficulty working within the existing windows. This may be done in the context of the project-specific informal consultation process set forth in the Management Plan.

### *Longer-Term*

The Long Term Work Group will organize the long-term tasks under the following sub-groups:

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- (1) Science and Data Gaps: Identify key scientific data gaps regarding life histories of sensitive species and impacts of dredging and disposal on sensitive species, which if filled may allow modification of the programmatic windows themselves.
- (2) Evaluate new or emerging technologies or operational measures (including monitoring) that may allow unacceptable impacts to be avoided even when target species are known to be present; consider possible pilot projects (possibly in collaboration with the NAS) to demonstrate promising technologies or operational measures
- (3) Confounding Factors: Identify other factors, such as projects funding and contracts, regulatory process, and scheduling or equipment needs, related to dredging projects that if resolved may allow more projects to complete dredging operations during established work windows
- (4) Funding Group: Consider potential funding mechanisms for investigations to fill the key data gaps identified, and pursue the research, technology and confounding factors needs.

### III. Scope

*The Environmental Windows Work Group's efforts are focused on the LTMS Study Area as defined in the LTMS Management Plan. The study area includes the San Francisco Bay and Delta. (Figure 1)* The environmental windows workgroup includes the following five subcommittees in the following categories: Short Term Solutions, Science Assessment and Data Gaps, Technology & Operations, Confounding Factors, and Funding. Oversight of the subcommittee work will take place by the larger, Long Term Windows Group.

Tasks of each subcommittee would include assessing existing information, identifying data gaps, and identifying and prioritizing potential tasks within each subcommittee. The prioritized tasks from each subcommittee would then be provided to the Long Term work group for synthesis and further prioritization with the recommendations from the other task groups. Other tasks include the assimilation of relevant and solid data and assessment of data gaps.

An important component of this process would be for significant communication between each of the subcommittees to occur. Therefore, as recommended by the Marine Board Report, the chairperson from each task group will participate in the other groups. Peer review (in a form and fashion to be determined) will also be an important component of this effort.

~~A schedule for eventual conclusion of this process needs to be determined. Once this process has been concluded, it is anticipated that additional relevant information could be incorporated, consistent with the adaptive management concept embodied in this process.~~



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Insert LTMS Study Area Map Here  
Attached PDF File

#### IV. STRUCTURE/PROCESS

As stated in the mission statement above, the Environmental Windows Work Group is open to all interested parties, and will strive to address Short Term issues as well as examine the Long Term process and information gaps. This Work Plan establishes the structure and process for the work to be completed.

The Environmental Windows Work Group oversees the larger process. It examines the big picture questions around dredging, disposal and the environmental work windows. This Work Group identified three major issue areas that, if addressed, could lead to changes in the current programmatic environmental windows, identify means by which impacts could be avoided even if species might be present, or make it easier to work within the established Windows. The “Science Assessment and Data Gaps”, “Technology and Operations”, and “Confounding Factors” subcommittees, respectively, were developed to address each of these issue areas. In addition, a Funding Subcommittee was established to facilitate the implementation of the Work Plan. Additional work groups may be identified as the project proceeds. (The Short Term Work Group is discussed below.)

##### Role of the Environmental Windows Work Group and Subcommittees

The role of the Environmental Windows Work Group is to help synthesize and prioritize policy and study proposals from the subcommittees, and transmit consensus recommendations to the LTMS Management Committee. The subcommittees report to and make recommendations to the Work Group. (Detailed task lists for the individual subcommittees are given in later sections.)

##### Role of the Short Term Work Group

The Short Term Group seeks to solve the problems of specific dredging projects that have difficulty working within the environmental windows. This group also identifies and considers the list of proposed dredging projects for the year and analyzes the regional dredging program for the year, and attempts to identify areas of conflict, be they equipment shortages, permitting issues, or other confounding factors. This group is a forum for project proponents to come and talk to the resource and regulatory agencies in an informal setting and get technical advice both from experienced dredgers and the agencies.

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The Work Plan encompasses an adaptive management philosophy, allowing changes to be made as new information and technology develops. In addition, the tasks have been prioritized, so that progress can be made rapidly, focusing resources on the most effective processes. The Environmental Windows Work Group recognizes that some tasks can take place simultaneously, and do not require each task to be completed in a sequence that might slow progress in any area. The Environmental Windows Work Group understands that the outcome of its work could result in the environmental windows becoming more restrictive (allowing shorter work windows in some areas) or more permissive (allowing longer work windows in some areas).

The results of both the information gathering stage and any research that is completed, will need to be presented to the Environmental Windows Work Group. One method for compiling and presenting the information is using a data matrix system. Attachment A is an example of how the information might be summarized in a matrix. In addition the Environmental Windows Work Group plans to establish a data management system, as well as a library where studies and documents can be stored and accessed by interested individuals.

#### Overview of the Study Development Process

Proposed studies should go through the following process:

1. Identify issue
  2. Do a literature search to identify what has been done
  3. Based on this information, identify a proposed study scope
  4. Subcommittee members and peer reviewers (and as appropriate resource agencies and LTMS Program Managers) review, focus and revise study scope
  5. Recommended study scopes transmitted to the Environmental Windows Work Group for consideration and prioritization
  6. Study plan development and literature review should include the agencies, particularly the resource agencies, for relevance to their management issues
- An effort should be made to include scientific, technical or process experts at the appropriate meetings and enlist their input on specific studies or tasks.

#### *Schedule*

The individual Work Groups will develop a schedule for the identified tasks and submit it back to the Long Term Solutions Work Group for review and approval.

#### Bidding

#### LTMS Approval

#### *Peer Review*

This process will include scientific and technical peer review when appropriate, based on existing knowledge, the area of study and the need for added expertise regarding the study. The establishment of peer review group will be careful to include individuals who are respected in their field, have the appropriate expertise, are available to the process, and

determined appropriate given the task at hand. In addition, the work group will seek to include more scientific and technical expertise within the working groups.

#### *Schedule*

The individual Work Groups will develop a schedule for the identified tasks and submit it back to the Long Term Solutions Work Group for review and approval.

### V. SUBCOMMITTEE TASKS – *Short Term Solutions, Science, Technology and Operations, Confounding Factors and Funding*

The Long Term Work Group participants have determined that the tasks associated with the Short Term Solutions, Science Assessment and Data Gaps, Technology and Operations, Confounding Factors, and Funding work groups are equally important in reducing the difficulty of working within the environmental work windows, or providing information supporting the expansion of the work windows. All five work groups should be working cooperatively and simultaneously to create the most efficient, well structured and supported outcomes. It is also recognized by the group that addressing Confounding Factors maybe the quickest and least expensive way to move dredging projects forward while protecting the species of concern as these issues represent improved communication and regulation of the dredging community.

#### A. Short Term Work Group

1. Identify projects that will be dredged during the calendar year.
2. Identify any difficulties that may exist (e.g. equipment availability, scheduling, contracting, closure of window) that may impede completion of the project within the calendar year.
3. Facilitate and expedite information provided to the Corps and the processing of administrative matters to minimize the impact of these factors on dredging projects.
4. Facilitate the informal consultation (i.e., direct applicant to supply proper information) with resource agencies.
5. Apply lessons learned from previous years to improve communication, logistics and impacts from confounding factors.

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#### B. Science Assessment and Data Gaps

##### *Species Information – What Information is Needed to Protect Species of Concern?*

1. Conduct focused literature search on species of concern (use species from biological opinion and Coho) (contract) Use Phil's matrix and add in information from BO (i.e., life history, development, toxicity, disturbance, behavior, regional information, etc.) Eric has for herring, reference list from BO, get from NMFS & FWS (ST no \$)
2. Review literature for relevance to situation (science panel)
  - a. *Research Option:* Verify presence of species, e.g. fish tracking studies
3. Identify conflicting interpretation of report and literature (science panel)

4. Identify necessary information and data gaps needed to assist in biological assessments (agencies and science panel)
5. Prioritize suggested studies for implementation
6. Develop study design and seek agency approval of design
7. Initiate studies and incorporate appropriate peer/scientific review

*Impacts Information-What Information Do We Need to Understand and Evaluate the Impacts of Dredging on Species of Concern?*

1. Identify impacts of concern, for example: turbidity, behavior, including migration, contaminant mobility/effects, entrainment, habitat loss, foraging ground loss, etc. (contract)
2. For each impact identify the questions that need to be answered for each species
  - a. For each impact, identify whether it's known to occur or listed because it's "possible"
  - b. For each impact in the "known" category, identify whether measures/metrics show it to occur and what degree or whether it is generically known
  - c. For each impact in the "possible" category, identify what information is missing (presence/absence etc) or would be helpful to know in moving it to the known category
  - d. Identify information needed to verify impacts to species where no information exists in the opinion
3. Gather existing information on possible impacts effects on species (contract)
4. Review literature for relevance to situation
  - a. *Research Option: Turbidity Study - Examining the Extent of Plume*
5. Identify conflicting interpretation of report and literature
6. Identify necessary information and data gaps needed to assist in biological assessments
7. Prioritize suggested studies and/or monitoring techniques for implementation
8. Develop study design and seek agency approval of design
9. Initiate studies and incorporate appropriate peer/scientific review

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*Process – Who will provide the science expertise and how will they fit into the process?*

1. Promote the inclusion of scientists in the scoping of studies that need to be completed to address issues
2. Identify science experts – scientists as advisors, including agency representatives
3. Select Chair (Chair will also attend Technology and Operations Meetings)
4. Recommend existing studies for review
5. Review and critique existing studies
6. Summarize findings for each species
7. Review information provided from the Technology and Operations Committee
8. Suggest possible changes to Technology and Operations to reduce impacts to species
9. Identify possible standard conditions based on information provided
10. Provide findings to agencies for possible use as basis for changes to or establishment of new biological opinions
11. Make recommendations for new studies if necessary

12. Yearly review of data gathered through studies

*Next Steps - What happens after new information is developed?*

1. Incorporate new concepts into the process through adaptive management
2. Revise existing methods, and possibly regulations as appropriate.
3. If necessary, request re-opening of the biological opinion
4. Utilize a programmatic and/or project specific approach
5. Provide information regarding changes to the agencies and industry

C. Technology and Operations

*Operational Changes - Are there operational changes that might allow dredging/disposal to occur during restricted periods?*

1. Review current best management practice of dredging/and disposal
2. Assess whether or not best management practices are being followed
3. Assess whether there are operational changes that can be made which would reduce impacts to species of concern
4. Recommend modifications to dredging/disposal operations to further to reduce impacts

*Equipment Assessment - What types of equipment is available, how much is available, and what are their impacts to the environment?*

1. List available/existing dredging technologies and their specifications and capabilities
2. Do a literature review on dredging techniques and impacts, starting with a WES (ERDC) "DOTS" request from San Francisco District
3. Create a list of advantages/disadvantages of each type of dredge/disposal method relative to impacts identified and cross-reference them with the species that would be expected to be impacted
4. Identify costs associated with different types of dredging, (i.e., hydraulic, clamshell, environmental bucket)

*Investigate other Areas - Are there other types of equipment or operations in other parts of the country/world that might be advantageous to use here?*

1. Identify current technology or techniques used for dredging projects elsewhere, especially where there are environmental windows in place
2. Identify other technologies that could be used in the Bay Area
3. Identify the impacts that any additional techniques (found through this review) had different/additional impacts

*Process – Who will provide the science expertise and how will they fit into the process?*

1. Identify dredging technology experts – as advisors, including agency representatives (these could be engineers, contractors, etc)
2. Select Chair (Chair will also attend Science Meetings to relay information back to the technology group)

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3. Review and critique existing technologies and their associated impacts
4. Identify data or information gaps regarding the impacts of different types of equipment or practices
5. Summarize findings for each dredge/disposal type
6. Review information provided from the Science Committee
7. Suggest possible changes to equipment or operations to reduce impacts to species
8. Suggest possible physical measures to reduce impacts (i.e. silt curtains, types of buckets)
9. Discuss findings resource agencies, and determine if different dredging technologies would allow work outside of windows in some instances or if suggested measures could be used as basis for consultation requirements
10. Make recommendations for new studies/technology development if necessary
11. Yearly review of data gathered through studies

#### *Research*

1. Through monitoring of current projects and existing data, establish a database of characteristics of dredges - i.e., suction velocities which will inform decisions in the future
2. Recommend pilot studies or use of appropriate operations or technological measures
3. Design studies that will provide needed information about impacts of different types of equipment

#### D. Confounding Factors

*Many factors influence the dredging/disposal process. Can appropriate actions be taken to improve the dredging/disposal process without additional studies?*

1. Document steps required for a dredging project to begin (Port of Oakland to provide)
2. Examine Confounding Factors that delay or prevent a dredging/disposal to proceed in a timely fashion (See Appendix B)
3. Identify which of the above listed factors are within group's control
4. Identify areas where streamlining could take place, or changes can be made to improve the process - i.e. could sediment quality testing be completed earlier or could the process be more standardized?
5. If the issue is not within this group's purview, identify the group(s), which may be able to address the issue and seek their cooperation
6. Form a work group to develop alternatives to processes or practices that need to be improved
7. Address the incorporation of beneficial reuse in a project, and whether changes in the project specific or programmatic consultation can result

*Proposed Actions - What are the actions that are currently needed to aid in the dredging/disposal process?*

1. Suggest a timeframe for informal consultations (formal consultations take 135 days)

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2. Revise the Corps of Engineers contracting process shifting the operations and maintenance budget away from the fiscal year, and create a multi-year funding cycle
3. Identify options for ensuring contracts (Corps and Private) are ready to go when work windows open
4. Develop a process that maximizes the use of existing data and Tier 1 testing exclusions in order to have as many projects approved and ready to go when windows open
5. Create a first tier of information and/or a set of criteria for each project that can be provided to the resource agencies for consultations
6. Create a monitoring process for the dredging community that provides information to the resource agencies
7. Identify how monitoring techniques can be used as conditions in the permit process
8. Establish an annual regional planning meeting to evaluate upcoming dredging projects; identify windows, and prioritize projects, assign equipment/contracts, request consultation for challenging projects as needed
9. Create an educational tool - Biannual "Learn the Process" meetings, which will keep people informed about the process and constraints (for both agencies and dredging community)
10. Develop informational materials regarding dredging, disposal, environmental windows, in the form of handouts, worksheets, and power point presentations for website
11. Consider the idea of compensatory mitigation, especially for "potential" versus known impacts

#### E. Funding

1. Assess the costs associated with the agreed upon work plan and prepare a draft budget.
2. Develop a game plan for securing funding from private and governmental sources, including from within company and agency budgets.
3. Assist in preparation of applications as appropriate.

#### VII. Measures of Success

1. Impacts to threatened, sensitive and endangered species are avoided, minimized or eliminated.
2. The majority of the projects are completed during the environmental work windows.
3. Beneficial reuse sites are available and being utilized.
4. The regulatory process (including consultation) is streamlined.
5. Dredging projects are reviewed annually and regionally for compliance with the environmental work windows and projects that do not meet the windows proceed to the consultation process right away.

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6. Consensus is reached on improvements to the environmental windows that protect endangered and other species of concern, and provide timely dredging of Bay Area Projects.

**Appendix A**  
**See Attached Document**  
**Proposed Data Matrix**

Species v	Information Status v	<<< Data Type <sup>a</sup> >>>											
		Life history		Development		Toxicity		Disturbance		Behavior		Seasonal Mi	
		Basic <sup>d</sup>	Impact <sup>e</sup>	Basic <sup>d</sup>	Impact <sup>e</sup>	Basic <sup>d</sup>	Impact <sup>e</sup>	Basic <sup>d</sup>	Impact <sup>e</sup>	Basic <sup>d</sup>	Impact <sup>e</sup>	Basic <sup>d</sup>	Imp
Species W	Biological Opinion <sup>b</sup>												
	New information <sup>c</sup>												
	Information needed <sup>f</sup>												
Species X	Biological Opinion <sup>b</sup>												
	New information <sup>c</sup>												
	Information needed <sup>f</sup>												
Species Y	Biological Opinion <sup>b</sup>												
	New information <sup>c</sup>												
	Information needed <sup>f</sup>												
Species Z	Biological Opinion <sup>b</sup>												
	New information <sup>c</sup>												
	Information needed <sup>f</sup>												

<sup>a</sup> Data type codes could include: NA = not available, E = extrapolated, 0 = no info in SF Bay, 1 = little info in SF Bay, 2 = moderate info in SF Bay, 3

Note: Data type categories are shown as examples: additional data categories will likely be identified.

<sup>b</sup> or other controlling document

<sup>c</sup> known to be available, not included in Biological Opinion

<sup>d</sup> "Basic" means information about the topic under natural conditions.

<sup>e</sup> "Impact" means information about a dredging or related impact.

<sup>f</sup> Proposed categories: X = low, XX = medium, XXX = high priority

**Appendix B:  
List of Factors That Can Confound The Dredging/Disposal Process**

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- 1) possible historic backlog of dredging
- 2) permits not ready, or too long to get
- 3) financial hardship of marinas/applicant
- 4) consultation requirements, length of time to get
- 5) information not provided for permit application or consultation
- 6) volume limits at disposal site
- 7) staff/equipment unavailable for dredging project
- 8) length of DMMO process
- 9) chemically challenged material that doesn't have an (affordable) home
- 10) project frequency, projects that haven't been dredged in several years currently require dredging
- 11) three bay area bridges under construction at one time and possibly utilizing staff/equipment that might otherwise be utilized for dredging
- 12) getting Corps dredging contracts out to bid late
- 13) Port labor disputes causing complications for Port berth dredging
- 14) General contracting issues (other than the Corps issues)

**Some Identified Issues:**

- 1. Conflicting Closure Issues - How do we minimize overall impacts when needs of multiple sensitive species are in conflict.*
- 2. Conflicting Project Issues - How do we minimize overall impacts when needs of multiple projects are in conflict. (Or, How do we prioritize projects if needed?)*
- 3. Beneficial Reuse - How does the use of beneficial reuse sites for disposal affect the application of the environmental windows? – E.g. if material goes to Hamilton, or Montezuma, can some dredging windows be waived? In what instances? (This supports the overall LTMS goals, and reduces impacts to Bay resources)*

## **Appendix C**

### *Ongoing Efforts*

1. Scoping for Study of Effects from a Dredging Project on Turbidity
2. Port of Oakland Monitoring of Fifty Foot Project
3. Port of Oakland Monitoring of Least Tern Colony  
Corps Literature Review
4. NOAA Port Coordination Pilot Project

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## 2009 Dredging Projects

PROJECT NAME	CITY/ LOCALE	EPISODE 2009 VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENC Y (if known)	CONTRAC- TOR (if known)	EQUIP- MENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/SPE CIES	COMMENTS
Alameda Ferry Terminal	Alameda	22	RB	1990			H?	SF-8	SAR approved	October/ November		8/1 - 11/30	DFG/herring NOAA/steelhead /salmon FWS & DFG/least tern	Currently considering a hopper dredge. Hard sand, not suitable for Alcatraz, potential for sand mining - Hopper may be an issue for landfill
Alameda Point Channel	Alameda	20	RBC	2008	3-Feb		C/Beam	In situ		2010		8/1 to 11/30	DFG/herring NOAA/steelhead /salmon FWS & DFG/least tern	Knockdown - potential for 2010
Alviso Launch Ramp	Santa Clara	1.1	RBC	New			C	Upland	SAR approved	October		9/15 to 11/30	NOAA/steelhead FWS & DFG/clapper rail/least tern	DOP approved
Alviso Marina Boat Ramp (Santa Clara Parks Dept)	Alviso	5-6	RBC	new			C	Upland	SAR approved	July		9/15 to 11/30	NOAA/steelhead FWS & DFG/clapper rail/least tern	Complete
Ballena Isle Marina	Alameda	43		2002	7			SF-11	SAP Approved	2010		8/1 - 11/30	DFG/herring NOAA/steelhead /salmon FWS & DFG/least tern	Potential for 2010
Berkeley Marina	Berkeley	8-9	RBC				C	SF-11	SAR approved	October		8/1 to 11/30	NOAA/steelhead /salmon FWS/tern/herrin g	DOP in, ongoing
Belvedere Land Company	Belvedere							SF-11	Tier One Approved			6/1 to 10/31	NOAA/steelhead /salmon/coho DFG/herring	Eelgrass issues- potential for 2010
Benicia Marina	Benicia	27	RBC	2008	2-3 years	PHIL JOY	Knockdown	none	Tier One Approve, for knockdown SAR in review	late October/ November		Need to consult for smelt year round	NOAA/steelhead /salmon FWS/delta smelt (less than 10 ft depth)	Knockdown underway, Will likely dredging until November 30th only - production rate analysis says 17kcy
BP Richmond Terminal	Richmond	15	C (see note)		3-4 years			SF-11, potentially berth 10 - PoO/ HWRP/	SAR approved	2010		6/1 to 11/30	NOAA/steelhead /salmon DFG/herring	IAA is pending. Needs BCDC permit amendment and wq cert. 2010

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Brickyard Cove HOA	Richmond	5	RBC	1980's	15 years	SR	C	SF-11	Testing Complete	#####		6/1-11/30	NOAA/steelhead /salmon DFG/herring	DOP Reviewed & Notice to proceed
California Maritime Academy	Carquinez Strait	37		1988			C	SF-9	Testing Complete	_2010		8/1-11/30	NOAA/steelhead /salmon FW S/delta smelt (depth > 10 ft)	Eelgrass, contaminant issues - likely 2010
Chevron Long Wharf	Richmond	100	RBC		Annual	D	C	Out of Bay	SAR Approved	October		6/1-11/30	NOAA/steelhead /salmon DFG/herring	Underway
Clipper Yacht Harbor, Basin One	Sausalito	14		2007			C	SF-11		2010		6/1 to 10/31	NOAA/steelhead /salmo/coho DFG/herring	Likely 2010
ConocoPhillips	Rodeo	45	RBC	2008	Annual	D	C	SF-8, SF-9 Hamilton	Testing Complete	20-Oct		6/1 to 11/30	NOAA/steelhead /salmon	Underway
Exploratorium (PoSF Berths 17/19)	San Francisco	85		1980's			C	SF-11, Hamilton	SAP Approved	_2010		6/1 to 11/30	NOAA/steelhead /salmon DFG/herring	Likely 2010
Glen Cove Marina	Vallejo	99	RB	2003	8-10 years	WD	C	SF-9	SAR approved	October/ November		8/1 to 11/30	NOAA/steelhead /salmon FW S/delta smelt (depth > 10 ft)	Needs d Crops Permit and DOP approval
Greenbrae Marina	Larkspur	18	BC	2006	3-4 years	SR	C	SF-11	SAP Approved	October/ November		6/1 to 10/31	NOAA/steelhead /salmo/coho DFG/herring	On 10/21/09 called to say they still want to dredge this year. SAR is not fully approved, no DOP
Hanson Aggregates (at Tidewater Ave)	Alameda	13					C	upland	SAR approved	October/ November		8/1 - 11/30	DFG/herring NOAA/steelhead /salmon FWS least tern	Needs property documents from Corps.
Levin-Richmond	Richmond	5	RBC	2006	3-4 years		C	Upland	SAR Approved NUAD	October/ November		6/1 to 11/30	DFG/herring NOAA/steelhead /salmon	Mercury- Due to disposal issues and navigational hazards, may need to work outside of window
Lowrie Yacht Harbor	San Rafael						C	SF-10		2010				Potentially 2010
Mare Island Dry Dock (ADR)	Napa River	104		1994			C	SF-9	SAR Aproved	2010		8/1 to 11/30	Delta Smelt smelt/steelhead/ salmon	Will be requesting consultation to work outside of the windows once permits are received.
Oakland Inner and Outer Harbors (Corps)	Oakland	400					C	Hamilton		July		8/1 to 11/30	DFG/herring NOAA/steelhead /salmon FWS & DFG/least tern	Complete
Oyster Cove Marina	South San Francisco	38	RBC	2006		SR	C	SF-11		September		6/1 to 11/30	DFG/herring NOAA/steelhead /salmon	Underway- complete by end of week

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Oyster Point Marina East Basin	South San Francisco	35	RBC	2007			C	SF-11	SAR Approved	September		6/1 to 11/30	DFG/herring NOAA/steelhead /salmon	Ferry deepening underway?
Paradise Cay Homeowners Association	Marin	44	RC	2007		SR	C	SF-11	SAR Approved			6/1 to 10/31	NOAA/steelhead /salmon/coho DFG/herring	DOP approved
Paradise Cay Yacht Club	Marin	61	C	2008			C	SF-11	SAR Approved	_2010		6/1 to 10/31	NOAA/steelhead /salmon/coho DFG/herring	Not until 2010
Pelican Harbor	Sausalito	35					C	SF-11	SAR approved	2010		6/1 to 10/31	NOAA/steelhead /salmon/coho DFG/herring	Likely not until 2010
Petaluma Marina	Petaluma	38.5	C	2007	5		H	Schoellenberger	SAR Approved; testing results to go to June DMMO mtg	2010		6/1 to 10/31	NOAA/steelhead	Schoellenberger needs to be cleaned out prior to placement - likely not until 2010
Pinole Shoal Channel (Corps) Advanced Maintenance (Stimulus)	Pinole	175		New			C	SF-8	Testing Complete	26-Oct		6/1 to 11/30	NOAA/steelhead /salmon	CD amendment requested, but not responded to
Pinole Shoal Channel (Corps)	Pinole	175	RB	2008			H/C	Hamilton/SF-10/SF-9	Tier One Approved	August		6/1 to 11/30	NOAA/steelhead /salmon	Complete
Port of Oakland Berths 22, 23, 24-26, 30, 32, 33, 35-37, 55-56, 57-59	Oakland		RBC	2008	Annual	D	C	SF-11	Testing Complete	August		8/1 - 11/30	DFG/herring NOAA/steelhead /salmon FWS & DFG/least tern	Episode One underway, Episode Two complete
Port of Redwood City Berths	Redwood City	40		2004	4-5 years	D	C	SF-11	SAR testing and re-testing Approved: NUAD & SUAD	2010		6/1 to 11/30	NOAA/Steelhead	Called on 10/20 requesting episode - need testing of additional material
Port of San Francisco, Berth 27	San Francisco	39	C	2008	Annual	D	C	SFDODS	SAR approved	October/ November		6/1 to 11/30	NOAA/steelhead /salmon DFG/herring	Requested DOP, production schedule
Port of San Francisco, Central Basin	San Francisco	253	RBC				C	Hamilton/SF-DODS	SAP Approved pending revisions	2010		6/1 to 11/30	NOAA/steelhead /salmon DFG/herring	Likely 2010



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Port Sonoma	Petaluma	50	RBC	2008	Annual		H	Upland/Carm eros River Ranch	December / January			Consultation in Place
Redwood City Harbor Channel (Corps) Stimulus Funds	Redwood City	500	RBC	2008			D	Bair Island Reuse/Upla nd	October		6/1 to 11/30	Underway - Using 2008 Consultation and expecting to dredge through December 09
Redwood Shores	Redwood City	67	RBC				C/H	Bair Island Reuse/Upla nd	Testing Complete		none	Not in Bay  Site prep underway, not in Bay, upland disposal , Windows do not apply
San Francisco Main Ship Channel (Corps)	Golden Gate	500	RB	2008	Annual	Essayons	Hopper	SF-8, Ocean Beach	1-Jun		6/1-11/30	DFG/herring NOAA/steelhead /salmon  Complete
Richmond Outer Harbor (Corps)	Richmond	150	RB	2008	Annual	Essayons	Hopper	SF-11	Testing Complete		6/1-11/30	DFG/herring NOAA/steelhead /salmon  Underway
Richmond Inner Harbor (Corps)	Richmond	250	RB	2008	Annual	Vortex	C	Hamilton	Testing Complete		6/1-11/30	DFG/herring NOAA/steelhead /salmon  Underway
River Park Marina	Napa	17	R			WD	E	Winter Island	Testing Complete			Underway
San Francisco Marina, City of SF	San Francisco	26	RB	2005		Jerico	C/H	upland	Testing Complete		6/1 to 11/30	DFG/herring NOAA/steelhead /salmon  Entrance Channel Complete
San Francisco Yacht Club	Belevedere	20	RBC			SR	C	SF-11	Testing Complete		6/1 to 10/31	NOAA/steelhead /salmon/coho DFG/herring  Complete
J. Maltester Channel/ San Leandro Channel (Corps)	San Leandro	86	RB	2001			H	Upland	Testing Complete		6/1 to 11/30	NOAA/steelhead  Likely 2010??
San Rafael Rock Quarry	San Rafael	16					C				6/1 to 11/30	NOAA/steelhead /salmon DFG/herring  Has not pursued permits
San Rafael Yacht Club	San Rafael	18	RBC	2008			C	SF-10/WI	On going		6/1 to 11/30	NOAA/steelhead /salmon DFG/herring  Mercury, ongoing
San Rafael Homeowners	San Rafael	0.44		2005			C	SF-10			6/1 to 11/30	NOAA/steelhead /salmon DFG/herring  Likely 2010
Sausalito Harbor	Sausalito						C	SF-11	SAP Appr.		6/1 to 11/30	NOAA/steelhead /salmon DFG/herring  Likely 2010
Strawberry Channel	Mill Valley	2			new		C	New Work?				Likely 2010

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Suisun Bay Channel/New York Slough (Corps)	Suisun	175	RB	2008	Annual		C	SF-16	Tier One	October		8/1 to 11/30	NOAA/steelhead /salmon FWS/delta smelt (depth > 10 ft) DFG/herring NOAA/steelhead /salmon FWS & DFG/least tern	Requested Amendment to CD and Water Quality Cert, no response to info request
Tidewater Aquatic Center	Oakland	3.5-4	RBC	new		WD	C	Upland	Testing Complete	September		8/1 to 11/30	NOAA/steelhead /salmon FWS & DFG/least tern	Underway
Valero	Benicia	80	RBC	2007	Quarterly	D	C	Hamilton SF-DoDs, Winter Island	Sap Appr. For 2009; plan to test fall '08	Ongoing		8/1 to 11/30	FWS/delta smelt NOAA/steelhead /salmon	Consultation allows for year round work.
Vallejo Yacht Club	Vallejo	25	RBC	2008			C	SF-9	SAP Approved	October		8/1 to 11/30	FWS/delta smelt NOAA/steelhead /salmon	Underway

Either complete or reasonably confident they will be finished by the end of the work window.

For a myriad of reasons, the project is now moved to 2010 or later

Ok, starting to bite our nails, there is some reason for concern on these projects. See the comments for each. It is possible that these projects are cutting it pretty close to the end of the window.

There is reason for real concern on these projects. Either they have not yet started, or a reasonable person would question whether they can be completed in time. They may need consultation, or may need to consider delaying until next year.